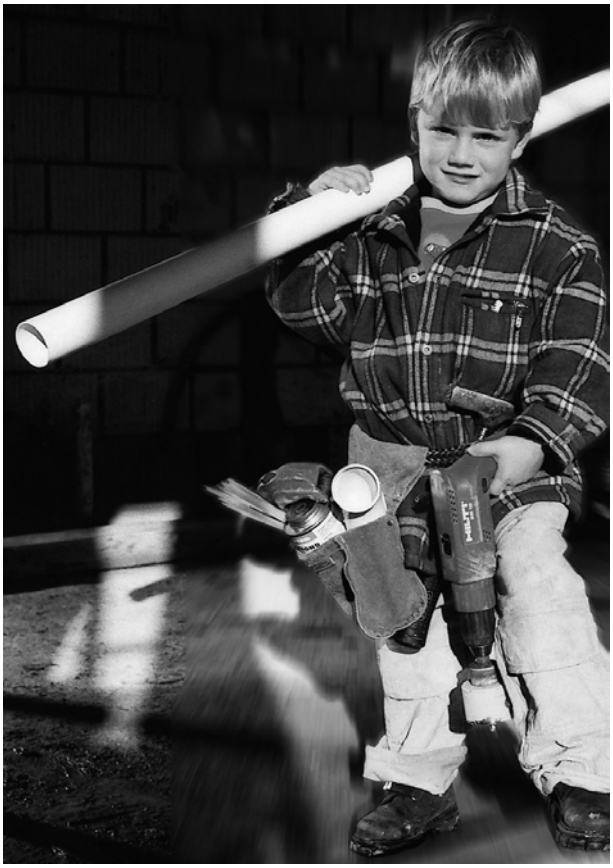
CENTRAL VACUUM SOLUTIONS

INSTALLATION MANUAL



Sole UK importer of the VarioVac Central Vacuum System

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Welcome to the 21st Century of central vacuum systems!

Your Central Vacuum System represents the very best in design and manufacturing. However, as with any powerful appliance, caution must be exercised while using it.

Please, please, please, please read these instructions all the way through before starting the installation of your new system. I know that instructions can be a pain to decipher and we are all guilty of neglecting them, but they are vital and I can assure you that your installation will be easier and more rewarding if you make the effort.

For additional technical help, telephone 01981 540836 or email info@centralvacsolutions.co.uk, alternatively you will find downloadable information on our web site www.centralvacsolutions.co.uk that may help to resolve your issue.

Thank you for choosing Central Vacuum Solutions.

Contents

1. Introduction

2. Important Safety Instructions.
2.1 Safety while using your Central Vacuum
2.2 Safety while installing your Central vacuum

3. The Six Golden Rules of Installing
3.1 Other important rules

4. Planning the layout

4.1 Faceplate Locations
4.2 Power Unit Location
4.3 Pipework Routes

5. Installation of faceplate using the universal mounting bracket in a new build
NB. For Vacpan installation, please refer to the instructions which accompany this appliance.

5.1 First fixing the mounting bracket during construction
5.2 Second fixing the inlet after plastering

6. Installation of faceplate using the universal mounting bracket in an existing home

6.1 Installing a mounting bracket and inlet on an existing plastered brick/block wall
6.2 Installing a mounting bracket and inlet on an existing stud-partition wall
6.3 Installing a mounting bracket and inlet on an existing solid dot and dabbed wall

7. Some useful installation photos

1. Introduction

Your new central vacuum system is surprisingly easy to install and will provide you with years of trouble-free vacuum cleaning. The system consists of four groups of components.

1. The power unit
2. The vacuum faceplates
3. The connecting pipe with fittings and electrical wire
4. The flexible vacuum hose and tools

Please thoroughly read the instructions for installation and operation before commencing your installation.

While we try to supply all necessary components to complete your installation, a precise system design incorporating every exact component with no additions or left over couplings is virtually impossible. It would take an exorbitant amount of time in consultation and surveys to achieve this possibility and our price would have to reflect the time spent. Therefore, the contents of our installation kits have been established over many years of development in conjunction with our extensive installation experience. They represent the easiest way to purchase your installation requirements and provide better value than purchasing components individually. Obviously, due to the various types of construction and design of buildings, we cannot guarantee sufficient components absolutely every time, however it is very rare that a customer requires additional components. We do not issue a refund or credit for surplus components unless specifically agreed with Central Vacuum Solutions Ltd and any additional components must be purchased.

The exact details of the components in your installation kit are supplied on your quotation and further details of what is incorporated in the installation kits is available on our price list. The packing slip/s within your installation kit/s will contain a list of every component supplied and all items should be checked off on receipt.

Your installation kit contains a variety of the most commonly used couplings. However we stock a number of specialist components and have specific instructions for problems that are rarely encountered and not contained in the manual. If you have a head scratching moment, there could be an easy solution, so please do not hesitate to contact us on 01981 540836 or email info@centralvacsolutions.co.uk . I promise that we will do our best to help and there is no such thing as a daft question.

2. Important Safety Instructions

2.1 Safety Precautions - using your central vacuum

READ THE FOLLOWING INSTRUCTIONS BEFORE USING THIS CENTRAL VACUUM SYSTEM, AND BE SURE TO SAVE THIS MANUAL FOR FUTURE REFERENCE.

To reduce the risk of fire, electric shock, or possible personal injury, the following precautions should be followed.

1. The central vacuum system is thoroughly tested before being shipped. However if service is ever required, be sure to unplug the unit from the power socket before servicing.
2. This central vacuum system is approved for dry pick-up only unless otherwise stated in the user manual. To avoid possible electric shock DO NOT USE when rug and / or floor is wet.
3. This central vacuum system possesses extreme suction / air flow and should not be used as a toy. Close attention is necessary when used by or near children.
4. Because of the extreme suction / air flow of your system, it is important that the end of the hose is NOT applied to eyes, ears, mouth or other delicate body parts. Also, keep hair and loose clothing away from all openings and moving parts.
5. Use this central vacuum system and accessories only as described in this manual. Use of attachments other than those supplied and recommended by Central Vacuum Solutions Ltd will nullify the conditions of the Guarantee and could result in damage or injury.
6. Never operate this central vacuum system if it has a damaged cord or plug. If you think the unit is not working properly, or if it has been dropped or damaged, call Central Vacuum Solutions Ltd on 01981 540836 or take it in to your authorised retailer for assessment and repair.
7. Be sure to keep the cord away from heated surfaces.
8. Do not unplug the unit by pulling the cord. To unplug, always grasp the plug, not the cord.
9. When you handle the plug, power unit or cord, make sure your hands are NOT wet.
10. Be sure all controls are turned to the ‘OFF’ position before removing the plug from the socket.

11. Do not pick or try to carry the power unit by the cord, use the cord as a handle, close a door on the cord, or attempt to pull the cord around sharp edges or corners.
12. Be sure no one puts any objects into air openings. Also do not use with any opening blocked; take care to keep openings free of lint, dust, hair, and anything that may reduce air flow.
13. Never pick up anything that is burning or smoking – such as 'live' cigarettes, matches or hot ashes.
14. Make sure the filter and / or dust bag is in place before operating the power unit.
15. Remember to use extra care when cleaning on stairs.
16. Never use to pick up flammable or combustible liquids or materials such as petrol, or use in areas where they may be present.
17. Care must be exercised when handling a long hose because it can provide a trip hazard. Make sure that others within the vicinity are aware of the working conditions!
18. Only transport the hose in a rolled up condition!
19. Never leave the switched-on suction unattended!

2.2 Safety Precautions – installing your central vacuum

Piping Installation

- Death Hazard - Caution must be exercised when working inside panels/walls which may hide/contain water or gas pipes or electrical components!
- When using hand tools or drilling equipment you should always wear recommended safety equipment such as a helmet, gloves and eye protection (goggles).
- Drilling through or creating a recess inside a wall is only allowable if its stability or integrity is not compromised.
- If the piping is crossing a fire break/compartments, the appropriate fire protection according to the latest regulations must be considered. If in doubt consult Central Vacuum Solutions Ltd or you local building control.
- In walls with a fire protection requirement, metal piping and metal vacuum inlet valves should be used.
- Structural components such as floor joists must not be cut in a manor that will affect their stability & integrity. Call Central Vacuum Solutions Ltd or consult you local building control if you are in doubt.

PVC Cement

- **Extra care must be used when gluing pipe with the solvent glue. Never glue a join directly overhead so that glue may drip onto you or persons below.**
- **Only use the glue in well ventilated places.**
- **Keep away from sources of ignition – NO SMOKING.**
- **Avoid contact with skin or eyes. FIRST AID: Skin – Flush thoroughly with water and get medical attention if irritation persists. Eyes – Flush with plenty of water for 15 minutes and then get medical attention.**
- **Do not swallow. FIRST AID: Give 1 or 2 glasses or water and induce vomiting and call the hospital immediately.**
- **Do not empty in drains or spill on open ground.**
- **KEEP OUT OF REACH OF CHILDREN**
- **A copy of the COSHH data sheet is available on our web site www.centralvacsolutions.co.uk**

24 Volt Activating Wire

- Death Hazard - The 24 Volt activating wire is exclusively for connection of the inlets from the central vacuum power unit. This remote control wire must never be connected to other power sources or run in conjunction with or even touch 240 volt insulated wires. An electric shock may result and mortal danger may occur!
- There is no need to employ an electrician to work with the 24 volt remote control lines.

Power Unit

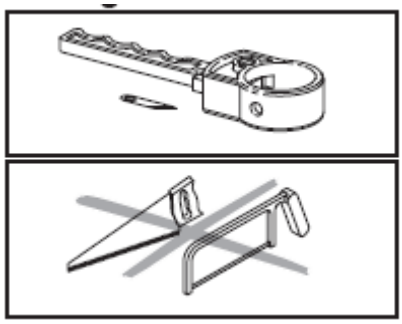
- The power unit and all connections should be inspected before start-up and at regular intervals for normal condition and working reliability.
- A defective central vacuum power unit must be unplugged / disconnected from the power source! Never remove the lid from the power unit without first disconnecting the power cord.
- Defective components must be replaced only with original genuine parts.

Disregard of safety regulations may result in serious danger.

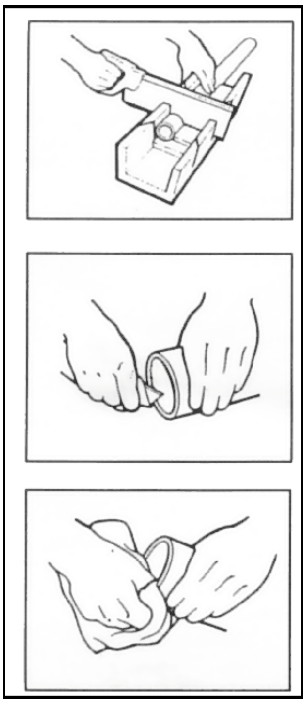
3. The Six Golden Rules of Installing

If you get these six aspects of the installation right then you are half way to obtaining the perfect installation. Ignore these rules and your guarantee will be void.

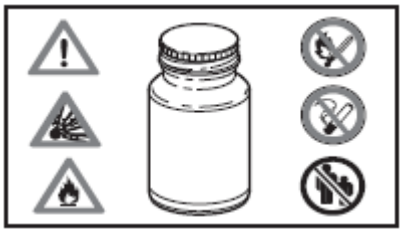
RULE 1



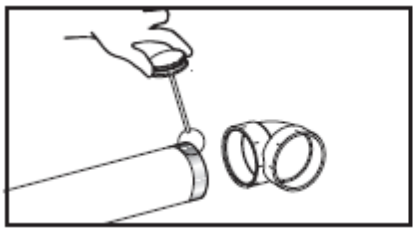
Do not use a hacksaw to cut the ducting because it is virtually impossible to get a straight cut. Using a tenon saw will ensure a much straighter cut. It is vital to make sure that the ducting is cut straight and that all the burs are removed prior to gluing; otherwise this will present a potential location to trap dirt. Use sand-paper or a knife to remove the burs. Alternatively, buy or hire one of our specialist pipe cutters.

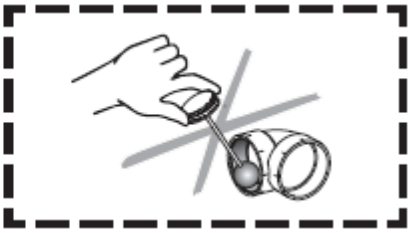


RULE 2



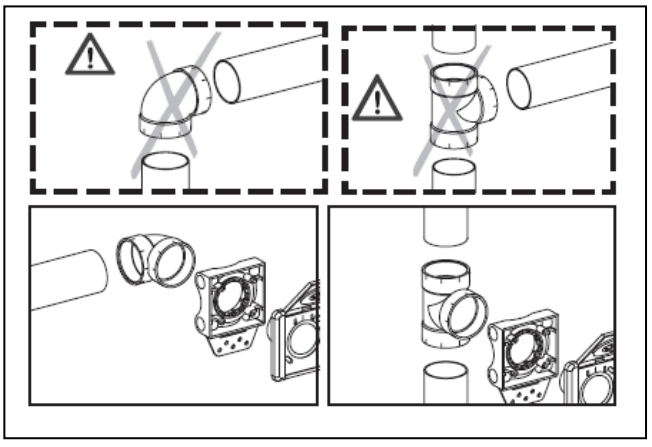
Only use the correct solvent glue supplied by Central Vacuum Solutions. Only apply the glue to the ducting or male part of the join. Do not put glue into the coupling. If the glue is applied to the coupling, there will be a ring of glue on the inside when the pipe is pushed in on the inside of the pipe. This ring will set hard and presents a potential trap area. If the glue is applied to the pipe then the ring of glue will be on the outside of the ducting and can be wiped off using a suitable cloth.





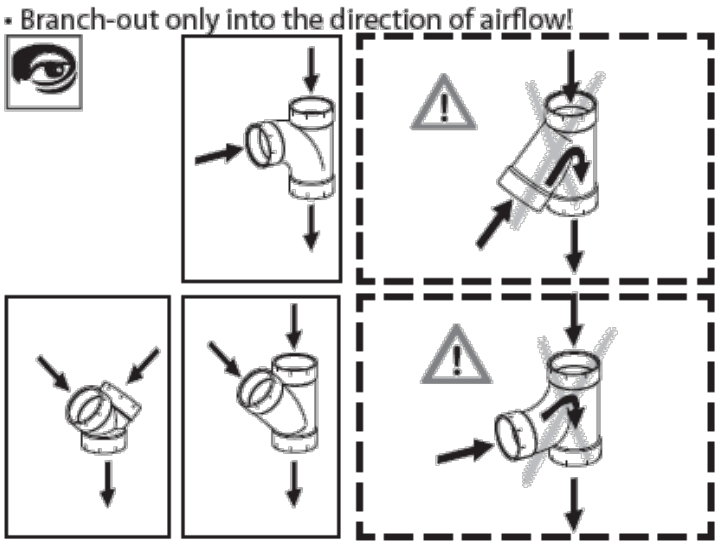
Every single coupling should be glued except the pipe connecting to the power unit.

RULE 3



Only install the sharp 90º elbow or sharp 90º “T” piece directly behind the inlet. There will be the same number of sharp 90º elbows as inlets in an installation kit. All other bends in the system should be swept. This sharp elbow is specially designed to trap any long objects from entering the main ducting system and then creating a build-up and subsequent blockage. This bend is part of the anti-blockage system and is the main reason we can provide a lifetime guarantee against blockage during normal usage. Always attempt to install this bend directly behind an inlet as the first coupling, however when installing an inlet on a solid wall with the ducting dropping or rising on the opposite site of the wall it will not be possible to do this, and you will have to make do with installing this coupling as the very first bend on the other side of the wall. Any long objects, like a pencil, can be easily removed using a coat-hanger wire.

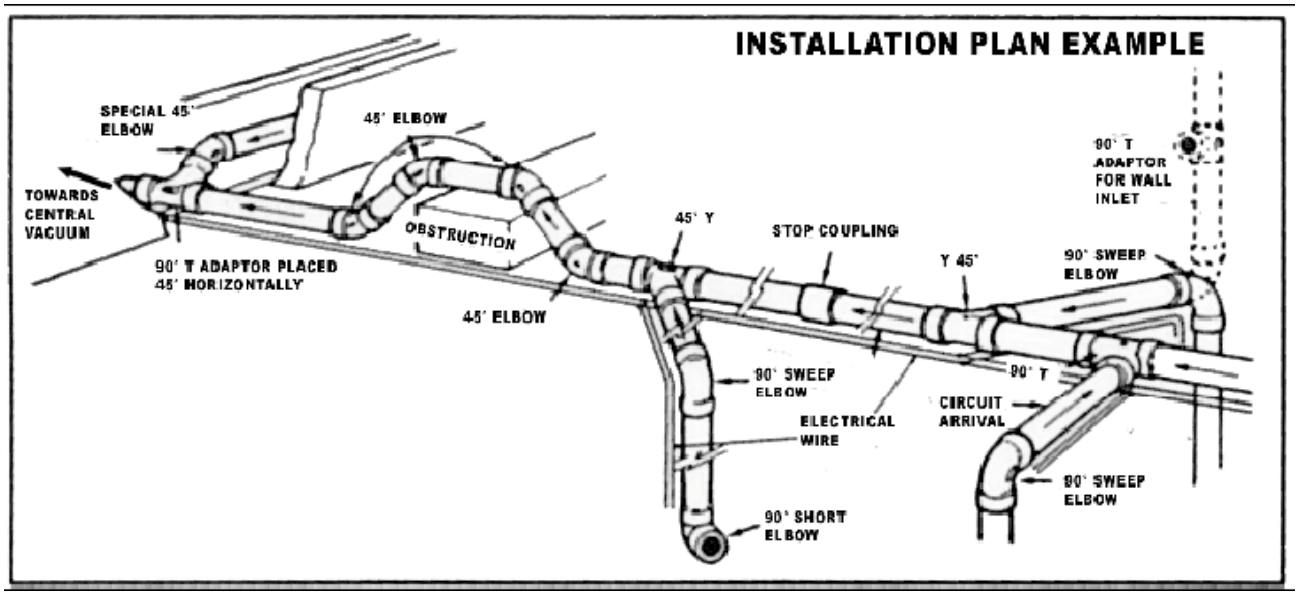
RULE 4



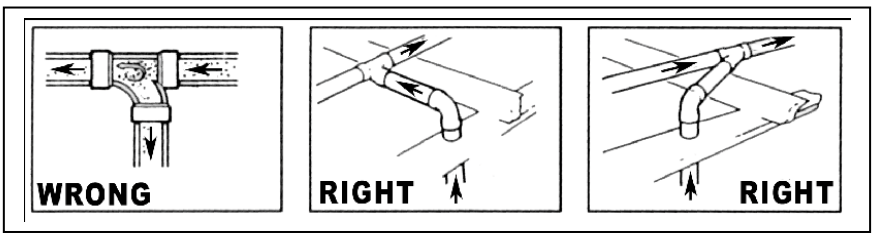
Always ‘T’ off in the direction of the suction similar to water pipe. A “T” can occur anywhere but ALWAYS must sweep in the direction of the air flow.

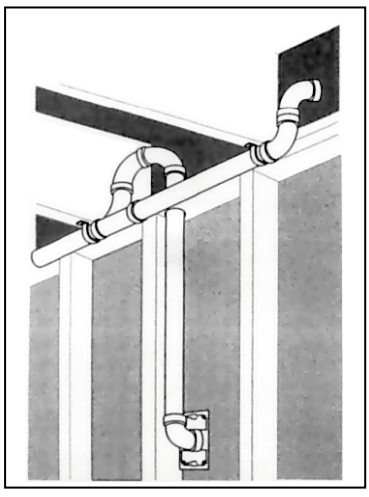
Get this one wrong and you deserve a smack.

RULE 5

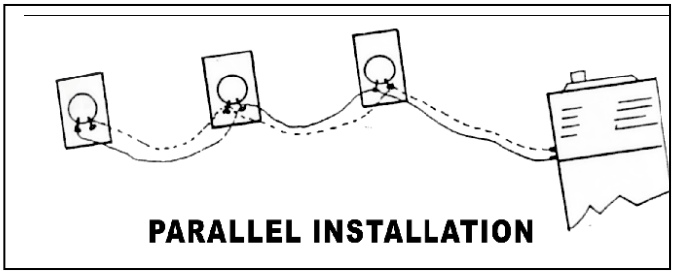


Only “T” off from the side of a main manifold or pipe run. If you “T” off from below a pipe any debris that travels from an inlet further down the ducting network can drop into this branch and may fall out when you open this inlet.

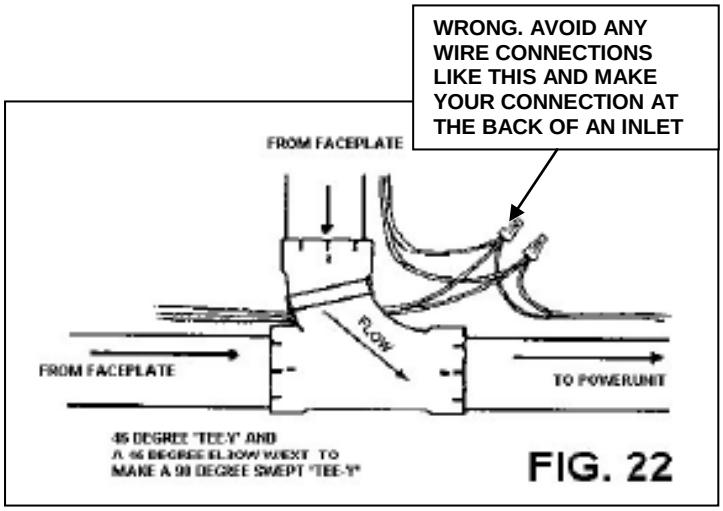




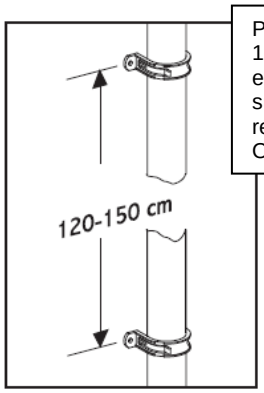
RULE 6



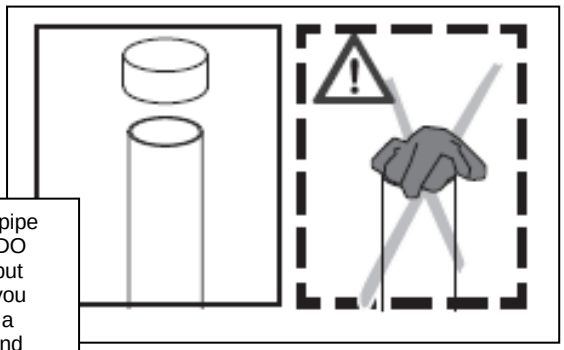
Make all the wire connections at the back of the inlets and avoid any low voltage wire joins anywhere else. This is especially important when wires run under a screed floor. NEVER MAKE A WIRE CONNECTION UNDER A SCREED FLOOR. Use a parallel or loop in and loop out circuit from each inlet.


WRONG. AVOID ANY WIRE CONNECTIONS LIKE THIS AND MAKE YOUR CONNECTION AT THE BACK OF AN INLET
FROM FACEPLATE
FLOW
FROM FACEPLATE
TO POWERUNIT
45 DEGREE 'TEE-Y' AND
MAKE A 90 DEGREE SWEPT 'TEE-Y'
FIG. 22

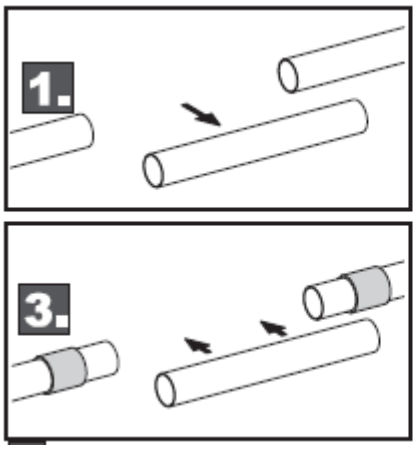
3.1 Other Important Rules



Place pipe clips every 120-150cm apart, especially where pipe is surface mounted and remains exposed. (E.g. On the garage wall)



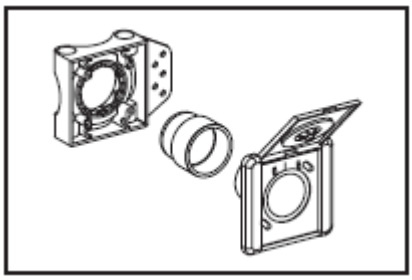
If you have an open ended pipe that you no longer require, DO NOT use tape to seal it up but use the correct end cap. If you intend to use this branch at a later date, do not glue the end cap so that it can be removed.



If you need to repair a broken pipe, use two slip couplers (without a stop flange inside).

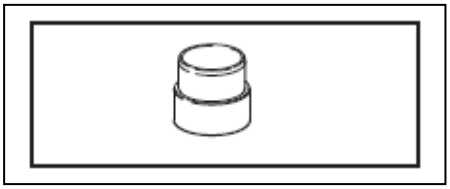
1.Cut the broken pipe out and cut a new piece the same length. Gently chamfer all four ends of the pipe.
2. Slide the slip couplers onto either length of pipe.
3. Put a pencil mark on the pipe to indicate where the coupling will need to reach in order to cover the join.
4. Insert the new pipe and put a smear of glue on the joins and then slide the slip couplers over the joins quickly before the glue sets.

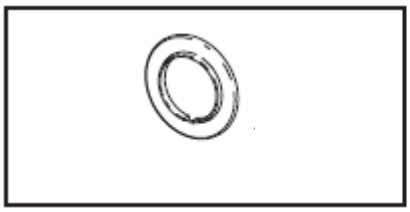
It may be necessary to tap the edge of the coupling with a blunt end and small hammer to make it slide

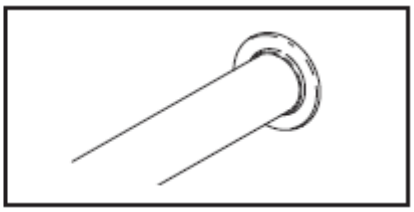


If the neck of the inlet does not reach the sealing ring in the mounting bracket at second fix because the plaster or plaster-boarding is too thick then you will need to order the correct inlet valve extension.

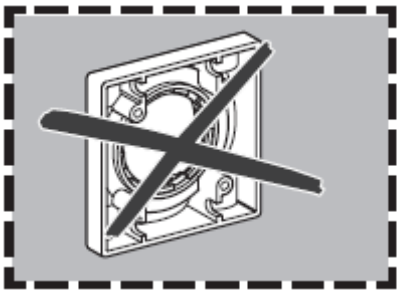
Please read the correct instructions when requiring an inlet valve extension. This is available on our web site www.centralvacsolutions.co.uk.





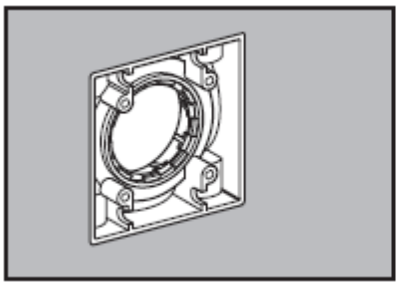


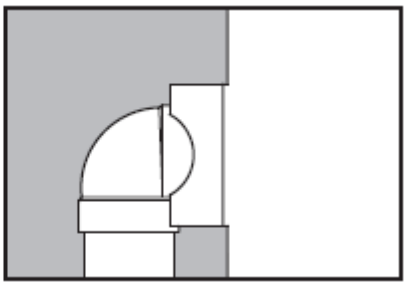
If you want to tidy a hole that you have drilled for the pipe to pass through, order a pipe collar or hole hider to make things look really neat.

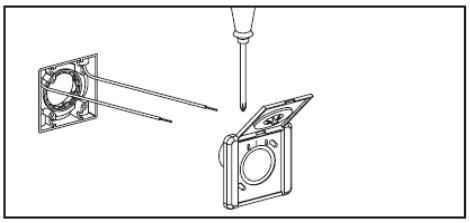


When you install the mounting brackets on a new un-plastered wall, make sure that the square raised lip on the front of the bracket WILL NOT protrude beyond the finished surface of the wall.

These brackets MUST be plastered into the wall or be behind the plaster-board. They are installed before plastering and they DO NOT mount on the finished surface of the wall.







If you have any doubts about what is meant by these rules then do not hesitate to contact Central Vacuum Solutions.

4. Planning the Layout

Please give careful consideration to the planning of the system. In an existing building, the position of the faceplates and location of the power unit will be determined by where you can conceal the pipework. A degree of compromise is sometimes necessary in an existing house and a hose length longer than 7.5m may be required. In a new build it is rarely difficult to obtaining the perfect inlet locations for a 7.5m hose because pipework can be concealed virtually anywhere. In both instances, the most efficient pipework route should be utilised. However, don't compromise on an inlet location for the sake of an easier installation or much shorter pipework route. A little extra pipework or two hours of extra installation time will be worth it. Your Central Vacuum will be used regularly and is designed to last a lifetime; so get it right first time and you will be glad that you put that extra bit of effort in. **A Central Vacuum will be one of the most important appliances you ever buy.**

If the system is being incorporated into the design of a new building, then provision for the faceplates and pipe work can be made during construction of the building and the faceplates can be placed in the optimum positions.

4.1 Faceplate Locations

(a) Existing Buildings

In an existing building, the best way of determining the positions of the faceplates is to use a 7.5 or 9 metres tape or length of rope to represent the flexible hose, alternatively use the hose if you have access to it. Having chosen an initial position for a faceplate, make sure that every inch of the floor, walls, cupboards and ceiling can be reached by the hose on that floor or part of the floor if more than one inlet is to be installed at that level

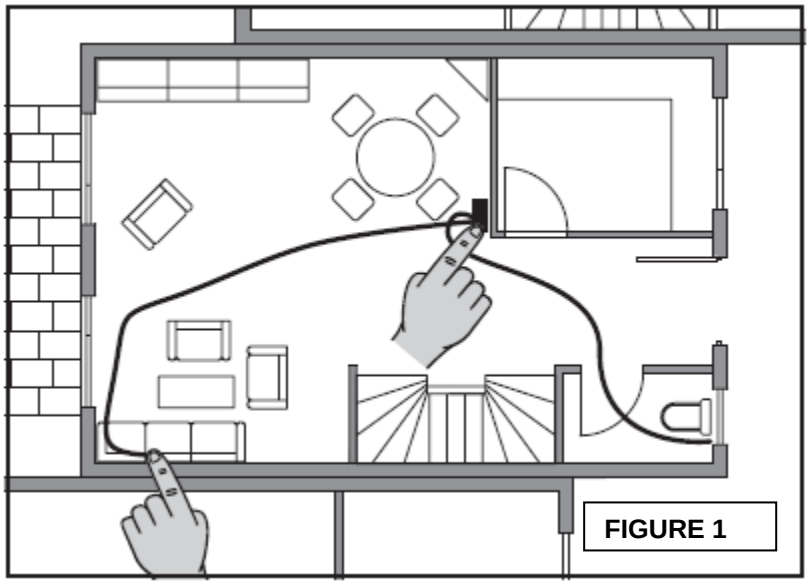


FIGURE 1

– **Figure 1**. Not forgetting that the hose may have to reach round large pieces of furniture or beds. **Ideal positions for the faceplates are in hallways, landings or near doorways. Make sure the faceplate is accessible and will not be obstructed by furniture or positioned where a door opens against a wall.**

Decide whether you want to mount the faceplate in the wall or floor. When wall mounted, the faceplate should be arranged so that the cover is pulled downwards to insert the flexible hose. Floor mounted faceplates have the disadvantage that the hose must be inserted at floor level rather than at a more convenient height but, if there are wooden floors, it is often easier to mount the faceplate in the floors than the walls.

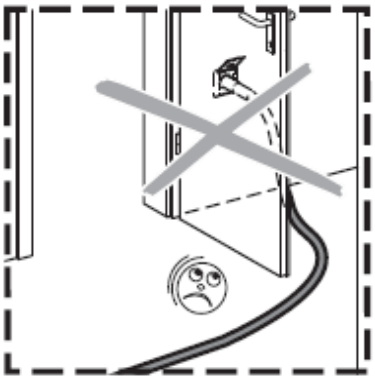


FIGURE 2

Avoid placing an inlet behind a door if that point will be used for cleaning through the door. If that inlet will be used for exclusively cleaning that room then this could be a good location because no furniture will be placed here. Alternatively, just beyond the end of the door when it is opened fully against the wall is ideal.

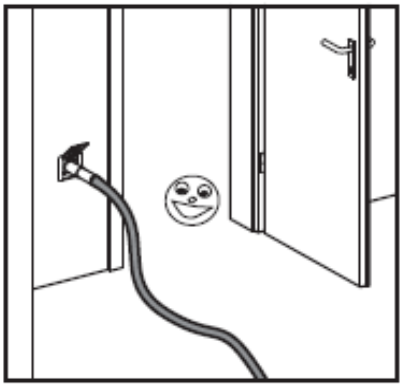
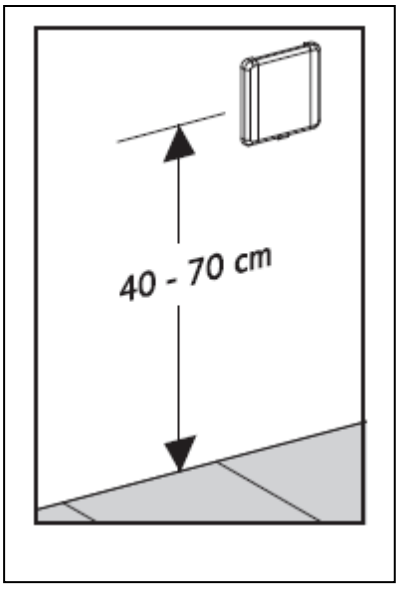


FIGURE 3

The latest building regulation for electric socket height is 450mm to the bottom and our square inlet valves are the same dimensions as a standard single socket and therefore look best at the same level. Alternatively, higher will mean that no bending is required when plugging in.



(b) New Buildings

For a new building when only plans are available, a piece of string of suitable length should be used to represent the flexible hose. Most floor plans are drawn at a scale of 1/50 or 1/100 so a length of string either 15cm or 7.5cm respectively will be suitable to represent a 7.5m hose or 18cm and 9cm for a 9m length. As in (FIG. 1) above, make allowances for furniture or other obstructions – some imagination will be called for!! With a new building, wall mounted faceplates will be preferable, probably at the same height as the electrical power sockets. For ease of use however, it may be preferable in some instances, to install the faceplate higher up the wall.

FIGURE 4

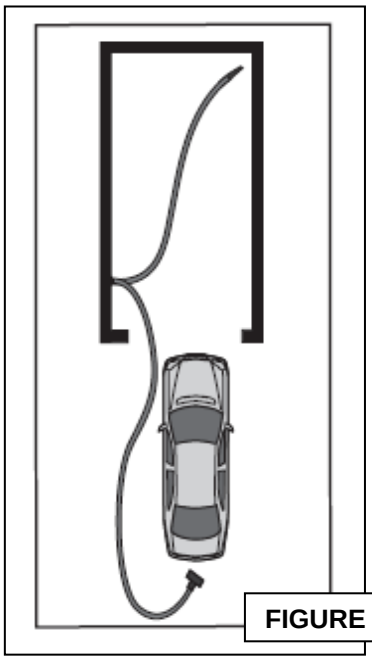


FIGURE 5

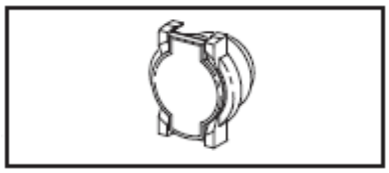


FIGURE 6 Part no. FP-10

DON'T FORGET THE GARAGE AND YOUR VEHICLES.
If the power unit is going to be located in the garage then an inlet can easily be mounted to clean both cars and the garage itself. If the power unit is being mounted elsewhere then try and locate an inlet in the garage. If you do not have a garage or it is detached then consider installing an inlet in a convenient location just inside an external door or on an outside wall near to where a car can be reached for cleaning.

The best way to install a garage inlet is surface mounted using a sharp "T" (part no. IC2501), utility inlet (part no. FP-10) and an end cap (part no. IC-2950). It is best to secure the utility inlet with a jubilee clamp rather than glue it into the sharp "T". The pipe and end cap on the bottom of the sharp "T" should not be glues to allow you to retrieve any heavy objects from the trap.

Always locate your garage inlet at the front near the door because you will usually clean your vehicle on the drive rather than in the garage.

A separate hose and care car kit (part no. AS-48) is ideal for cleaning your car and garage floor.

4.2 Power Unit Location

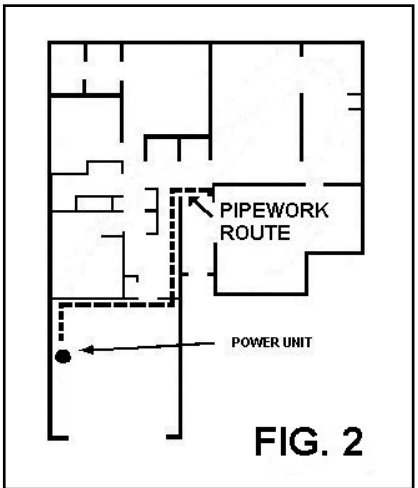
The power unit can be mounted on almost any wall but the height of the unit (with a full collector) should be taken into consideration. It should be out of the way, yet accessible so that the dust container can be emptied. A garage integral to the house makes an ideal location. Over time dust may become noticeable in the discharge from the exhaust of the power unit – for this reason it may be preferable to pipe the exhaust to the outside of the building (this ducting must not exceed 3m/10ft'). An exhaust silencer (muffler) is available as an optional extra to reduce operating noise, if required.

A 13 Amp mains fused electrical socket will be required in close proximity (maximum of 5½') to the unit.

SEE THE INDIVIDUAL POWER UNIT MOUNTING INSTRUCTIONS APPLICABLE FOR YOUR SPECIFIC MODEL. THESE WILL ACCOMPANY THE POWER UNIT OR ARE AVAILBLE ON THE WEB SITE.

4.3 Pipe work Routes

The complete pipe work route from the power unit to each of the faceplates should be planned before work starts - **Figure 7**. As a principle, you should choose the route that uses the fewest bends and least amount of piping. It is generally more convenient to run the piping under the ground floor if there is sufficient space. Similarly, for the upper floors the piping may run under the floor or, alternatively, the pipework may run vertically to the attic or loft space



and then down to the faceplates. It can be hidden in the corners of cupboards, under the stairs, beside soil pipe in boxing or within stud partitioning.

Please now refer to Section 5 – Installation in an Existing Building or Section 6 – Installation during Construction of a New Building as appropriate.

FIGURE 7

5. Installation of faceplate using the universal mounting bracket in a new build

5.1 First fixing the mounting bracket during construction

PLEASE NOTE - If your installation kit contains the new universal mounting brackets (part no. IC-180) and you are using square style inlets (part no. FPEU-41, FPEU-42, FPEUM- 50,51,52,53,54,55,56 or 57) then the bracket should be mounted upside down with the arrow printed on the side flange pointing down.

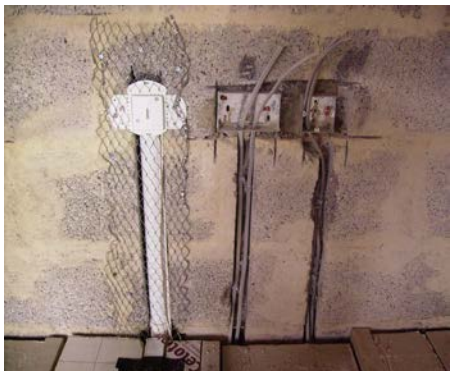
IC-180 universal mounting bracket (With the arrow pointing up)

IC-180 universal mounting bracket (With the arrow pointing down)

FPEU-41/57 square inlet

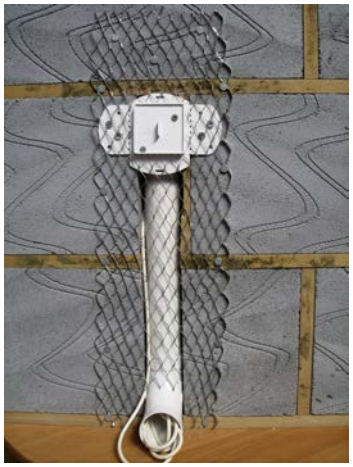
Square inlets look most attractive and are easiest to use when mounted with the flap pulling down to open. In order to mount them this way it is necessary to fit the mounting brackets upside-down (with the arrow pointing down) so that the holes for the inlet screws and the recess for the wire trap are in the correct position.

Inlets are usually mounted at the same height as the power points (450mm from the finished floor in new constructions) therefore, if you are using any of the square style inlets referred to above, **the bottom of the square raised surround should be 5mm lower than the power point mounting boxes** at first fix stage. This will allow the inlet to sit level with any adjacent power points after second fix.



Inlet mounting bracket installed at first fix before plastering ready for a square inlet. The bottom of the raised square middle section of the mounting bracket is 5mm lower than the bottom of the electric boxes.

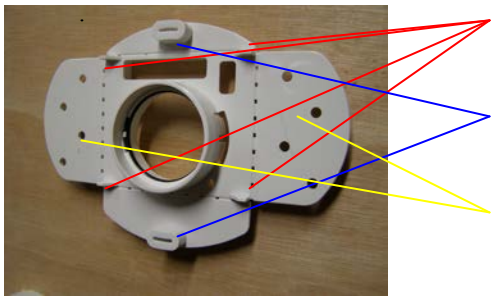
If you are using the longer rectangular inlets then the mounting bracket should be used with the arrow pointing the correct way up and the square raised surround mounted 30mm higher than any adjacent power point mounting boxes. This will allow the bottom of the inlet to sit flush with the bottom of the power points at final fix.



On **solid walls that are going to be rendered and plastered** the pipe is chased into the wall and covered with either expanding mesh or expanding foam prior to rendering. Make sure the wall chase is high enough to enable the top screw lug to be recessed within the wall and cut the four small tabs off the back of the bracket to allow it to sit flush against the wall. The mounting bracket is glued into a sharp 90 degree elbow, which acts as a trap bend. A plaster guard covers the inlet aperture and protrudes through the plaster until the inlet is required.

This mounting bracket has been installed with the arrow pointing up ready for the rectangular inlet to be installed.

Back View Of Mounting Bracket



If the wall is solid and going to be plaster boarded (dot and dabbed), and regardless of whether you are using square or rectangular inlets; the top and bottom screw lugs and the four small tabs can be retained to allow the bracket to sit slightly off the wall and flush against the inside of the plasterboard. It is also not necessary to use the mesh, allowing the bracket a degree of forward motion and preventing the need for inlet valve extensions when mounting the inlet during 2nd fix. A small strap can be utilised to prevent the assembly from falling out of the chase.

Mounting bracket held off the wall ready for dot and dabbing.

Mounting bracket with screw lugs retained sitting flush ready for plaster.

If the wall is solid and going to be plastered and you are using rectangular inlets; the top and bottom screw lugs must be retained and the four small tabs removed using a sharp knife or pliers. The pipe chase in the block-work must be long enough to allow the top screw lug to sit within the wall and allow the bracket to fit flush against the block-work. Additionally, there must be sufficient clearance behind to accommodate the inlet fixing screw at final fix. It is important to use mesh or expanding foam over the pipe chase to allow the plaster to bond well.

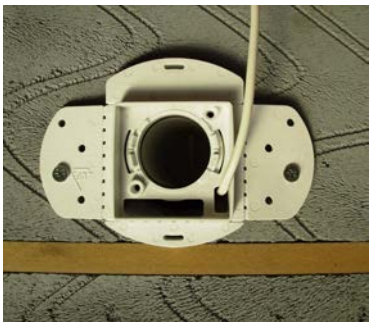
If the wall is solid and going to be rendered and plastered and you are using the square inlets; remove the four small tabs and bend and break off the top and bottom flanges containing the screw lugs from the inlet mounting bracket. This will allow the bracket to sit flush against the wall once the fixing flanges have been secured using wall plugs and screws.

Sitting flush ready for plastering once the wire is pulled through, fixing screws installed and the plaster guard is fixed.

PLEASE NOTE: Any chases on a cavity wall or between the garage and house MUST be filled with expanding foam and trimmed neatly prior to plastering to retain as much of an airtight seal as possible.

When mounting an inlet on the opposite side of a solid wall from the ducting, mark the desired position of the centre of the inlet and drill a pilot hole with a masonry drill. Drill halfway through the wall with a core bit and repeat on the other side of the wall to meet the first hole. The mounting bracket is glued into a straight coupling. Offer this assembly up to the wall and mark the position of the holes for the fixing screws. Remove the assembly and drill holes for wall plugs. **If either style inlet is being used, or the wall is being plaster boarded (dot and dabbed),** then the tabs and the screw lugs can be left in place to hold the bracket off the wall and allow it to sit against the inside of the plasterboard when mounted as per the above instruction. **If the wall is going to be plastered then make sure the mounting bracket sits flush against the wall as per the instruction above.** Glue a short length of pipe into the straight coupler sufficient to allow the fitting of a sharp 90 degree elbow flush against the opposite side of the wall and fix through the fixing flanges. Use a minimum of one 50mm screw on each side of the bracket to fix securely.

This pipe is surface mounted on the wall and goes through the wall to the mounting bracket on the other side.



This bracket is standing slightly off the wall ready for dot and dabbing once the plaster guard has been screwed on. The bracket is the correct way for a square inlet

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On **stud-partition walls** ducting rises or drops within the timber. A 57mm hole can be drilled through noggins and non-load bearing uprights. This is the minimum diameter to accommodate the wire and pipe. The minimum stud width required is 65mm.

This picture shows a mounting bracket before and after plaster-boarding. The only exposed part of the bracket after plaster-boarding should be the plaster guard. This particular installation has been prepared for rectangular inlets with the arrow on the fixing flange pointing up.

The mounting bracket is fixed to a stud upright using clout-head nails. Again it must be glued into a sharp 90 degree elbow.

PLEASE NOTE: The sharp 90 degree elbow must always be the first bend in a system behind an inlet and never used anywhere else in the system. The sharp 90 degree elbows are duel width and can be mounted either way around depending on the stud depth.

This is the short way of mounting the sharp 90 degree elbow to allow ducting to be accommodated within 3”/75mm stud work.

This is the longer way of mounting the sharp 90 degree elbow to allow ducting to travel through the centre of noggins within 4”/100mm stud work.

REMINDER: Remember to mount the bracket the correct way for the type of inlet you are intending to use.

An **'UP'** arrow indicates which way to mount the bracket for the **longer rectangular inlets**. This arrow points **down** if **square inlets** are being used. Feed the wire through the hole in the mounting bracket that says "wire trap" and post this end back inside the ducting and screw the plaster guard on using 20mm/1" size 8 screws.

When installed by Central Vacuum Solutions authorised installers, nail guards are hammered into any noggins where the ducting passes through to prevent puncture by the plasterboard fixings. This item is not included in the installation kit, but is available from Central Vacuum Solutions Ltd.

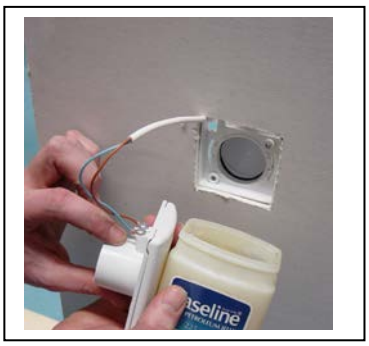
← This mounting bracket is ready for a square inlet with the arrow pointing down.

Nail guard to protect the ducting from being punctured by plaster-board nails or screws. →

5.2 Second fixing the inlet after plastering

When installing the square inlets and after the walls have been decorated, remove the plaster guards and install the inlet valves. Bare the ends of the low voltage cable and attach to the terminals on the inlet (it does not matter which way round). **DO NOT** remove the screws completely when attaching the wires because you may lose the tiny spring and brass pip sitting behind. Screw the inlet to the mounting bracket making sure the low voltage cable is not trapped and that you have not dislodged the sealing ring.

When fitting all inlets to the universal mounting brackets, apply some Vaseline to the collar of the inlet. This will allow it to fit smoothly into the mounting bracket without dislodging the rubber 'o' ring inside the mounting bracket.



When using the rectangular inlets the fixing holes will be buried under the plaster. Fit the long inlet into the mounting bracket and make sure that the inlet is straight. Mark the screw holes with a pencil. Remove the inlet and gently make small holes through the plaster at the marked points, being careful not to damage the mounting bracket and ducting behind.

Bare the ends of the low voltage cable and attach to the terminals on the inlet (it does not matter which way round). If the inlet has two “wire tails” rather than screws then twist the wires together and screw the small treaded cones on to the wire join.

PLEASE NOTE: Look inside the sharp 90° bend to check the direction the ducting travels and use the shorter of the two fixing screws supplied with the inlet to locate into the mounting bracket lug that has the ducting behind it. If the longer screw is used here it will puncture the ducting. Use the longer screw to secure the inlet at the opposite end. (E.g. If the ducting is chased into the wall, up from the floor it will travel down so the short screw must be used in the bottom fixing hole.)

6. Installation of faceplate using the universal mounting bracket in an existing home

6.1 Installing a mounting bracket and inlet on an existing plastered brick/block wall

It is easier to install a rectangular inlet onto a solid wall because you simply core drill a 65mm hole through the wall, insert the inlet into a length of ducting using a reducing bush (part no. IC283) to create the seal. Insert this assembly through the hole so that the inlet sits flush on the finished wall. The top and bottom screw holes can then be marked, drilled and raw plugged to receive the two fixing screws.

However, the square inlet can look better, especially if mounted near to a power point because of their similar looks. If you prefer the square inlet; it is possible to install these on an existing solid wall using the following method. **You will require a can of expanding foam.**

1. Mark and drill a hole using a 65mm diamond core bit, making sure you avoid electrical wires and pipes. (Core drills are available from us at trade price.)
2. Cut all the surrounding plastic away from the inlet mounting bracket (part no. IC180) using a pair of tin snips and leave just the circular sealing ring and the two screw fixing holes as per the photo.

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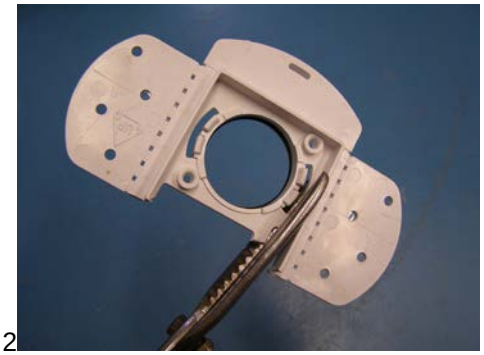
2 

2

3. Glue the remaining part of the mounting bracket onto a straight coupling (part no. IC280) and then glue a length of ducting into the other side of the straight coupling. Make sure that the ducting is sufficiently long to protrude through the other side of the wall. Offer this assembly up and through your hole. Make sure that the two screw fixing holes are diagonally opposed with one in the top right hand corner and one in the bottom left hand corner of your 65mm hole. Mark around the plastic seal, remove the assembly and chip away the plaster around your mark.
4. Pull the low voltage wire through your hole. Place the assembly back through he hole and press it into place so that the mounting bracket sits at least 10mm further back than the finished wall surface. If necessary, chip more of the plaster off to allow the sealing ring to sit the full 10mm back.

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5. Make sure that the screw fixing holes on the sealing ring are in the right location for attaching the inlet and squirt expanding foam from both sides of the hole, in between the ducting and the block work. Allow the foam to dry in accordance with the instructions on the can and then trim off any excess. Make sure you **DO NOT TO GET EXPANDING FOAM ON THE INLET SIDE OF THE WALL OR YOUR HANDS.**

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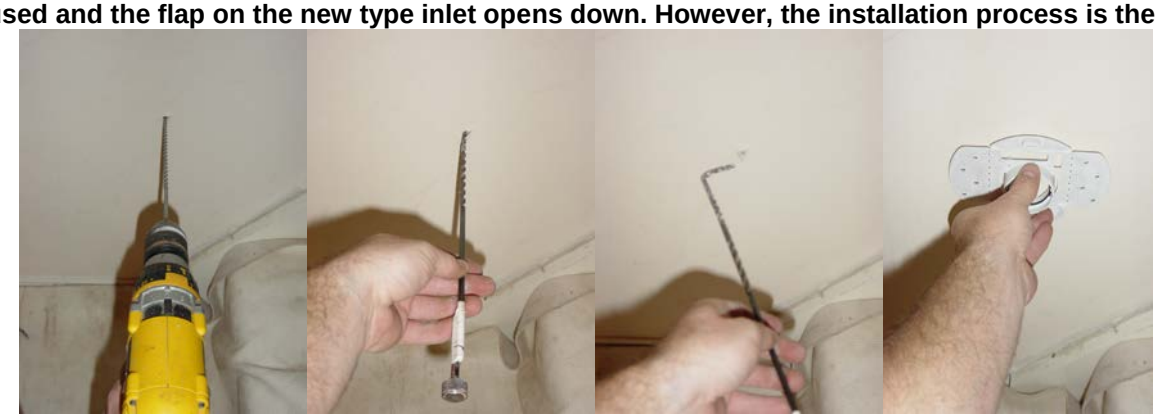
6. Connect the low voltage wires to the two screw terminals on the back of the inlet ensuring not to over tighten. Place a small amount of Vaseline on the neck of the inlet and on the rubber sealing ring and insert the inlet.

   Fix the inlet using the screws provided but do not over tighten.

   It may be necessary to chip a small amount of additional plaster off for sufficient clearance of the low voltage terminal screws and to allow the inlet to sit flush against the wall.

6.2 Installing a mounting bracket and inlet on an existing stud-partition wall

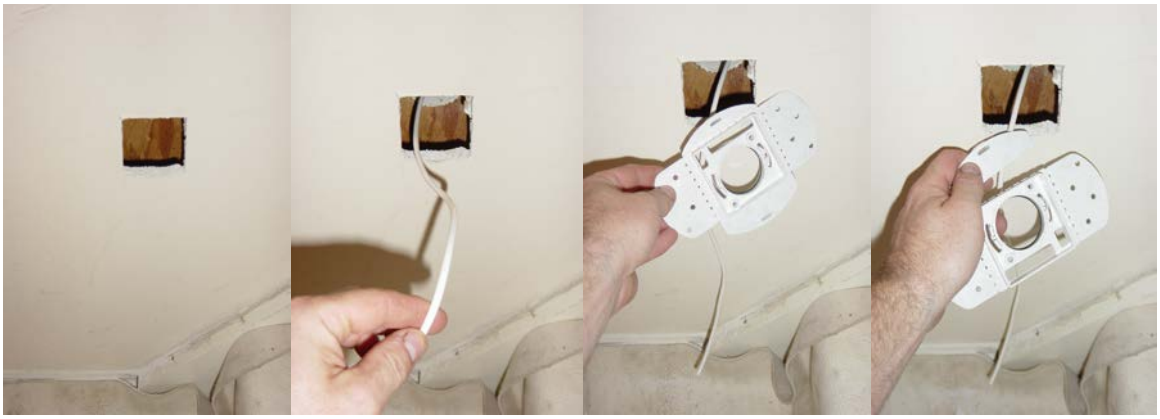
While reading these instructions, please remember that the arrow on the universal mounting bracket is INCORRECT and should be mounted the opposite way. This sequence of pictures show an inlet that is no longer used and the flap on the new type inlet opens down. However, the installation process is the same.



Decide on your inlet location. Never position an inlet above or below a power point, light switch or in any other area where there is likely to be wires or pipes behind the plasterboard. The height of the inlet is a personal choice, but it is preferential not to have to bend down to far to plug the hose in. Inlets also look esthetically better if mounted the same height as the power points, and this is especially true if the inlet is in close proximity to a power point.

Drill a small pilot hole on the side of the wall that is least conspicuous, (just incase the location is unsuitable and the pilot hole needs filling). Using a wire with a 30mm bent return at the end (a coat hanger is perfect), feed it through the hole and twist and move it forward and backwards to check for any obstructions or timber uprights. If everything seems clear, offer up the mounting bracket or plaster guard and mark around the square raised rim. It is important to note that the hole (with the sealing ring) that accommodates the neck of the inlet is off-set from the centre of the mounting bracket and this will affect the mounted inlet height. If the mounting bracket is located the correct way up (with the arrow on the bracket pointing down) then the bottom of the inlet will sit 17mm below the bottom of the bracket. This is particularly important if installing very near a power point and attempting to mount the inlet the same level.

Cut the square out of the plasterboard using a dry wall saw or hacksaw blade.
Do not push the blade too deep into the wall and be very cautious of wires and pipes. If the wall is plastered, then do not be too vigorous with the sawing movements and avoid chipping plaster off from around the cut hole. Most blades cut on the forward stoke, but it is the pull back that tends to pull the plaster off; therefore avoid cutting on the pull back stroke.



Drill a 57mm hole through the back side of the wall making sure that this is in line and will allow a straight path for the ducting to connect onto the circular spigot on the back of the mounting bracket using a straight stop coupling. The easiest way to do this is to offer the mounting bracket into the aperture that you have cut and mark the inside of the back piece of plasterboard through the middle of the hole in the bracket.

Feed the low voltage wire through the wall from the side where the ducting will run.

Bend and break off the two plastic flanges on the top and bottom of the bracket. (If you are installing the rectangular style of inlet then the opposite two flanges will need to be broken off and discarded to allow the bracket to fit through the cut hole. You will also need to mark and drill two holes for the inlet mounting screws to go through the plasterboard and locate into the self tapping screw lugs in the bracket.)

Pull the wire through the hole in the bracket marked “wire trap” and offer the bracket up to and then into the hole that you cut. (Make sure it is mounted the right way up, which is the opposite way to that shown in this series of photographs.) You will need to slide the bracket to one side of the hole within the wall and then back the other way to allow the raised square surround on the front of the bracket to sit neatly in the square hole. Sometimes, if there is a timber upright or another obstruction near to one side of the hole you will need to break one of the larger side flanges off to stop it fouling the obstruction. The small flange that remains will be sufficient to provide a secure mounting but it is good to retain the larger flanges if possible.

Strip the outer white insulation from the low voltage flex then strip approximately 20mm off the two blue and brown cables to expose the stranded copper wire. Twist the strands together on each cable and twist them around separate screws on the back of the inlet in a clockwise direction. DO NOT REMOVE THE SCREW COMPLETELY. If there is insufficient space under the screw to allow you to rap the wire around, then slacken the screw slightly but do not remove it. Tighten the screws but DO NOT OVER-TIGHTEN and make sure that there are no strands of copper wire breaching the screw contacts.

Place a small amount of lubricant (Vaseline is perfect) on the sealing ring in the mounting bracket. Open the inlet flap and place your finger through the opening of the inlet. Offer the inlet up to the bracket and hook your finger that you have put into the inlet through the mounting bracket while you gentle ease the neck of the inlet into the sealing ring. The lubricant should allow the inlet to mount easily into the bracket. If there is any resistance, be careful not to unseat the sealing rubber.

Make sure that the inlet sits flush and square on the wall. Fasten the inlet to the mounting bracket using any of the three screws provided. Be careful not to puncture the ducting behind the wall when inserting the screws. DO NOT OVER-TIGHTEN THE SCREWS because this will cause the inlet to leak. Check that the inlet looks straight and slacken the screws and adjust as necessary.

Cut the correct length of ducting and glue a straight coupler onto this pipe. Place a small amount of glue into the straight coupler (This is one of the few instances when you can put glue into the coupler rather than onto the pipe) and push this assembly onto the mounting bracket spigot.

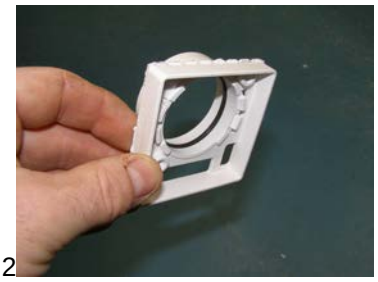
ALWAYS KEEP YOUR HANDS CLEAN WHEN INSTALLING INLETS ONTO EXISTING WALLS.

6.3 Installing a mounting bracket and inlet on an existing solid dot and dabbed wall

It is easier to install a rectangular inlet onto a solid wall because you simply core drill a 65mm hole through the wall, insert the inlet into a length of ducting using a reducing bush (part no. IC283) to create the seal. Insert this assembly through the hole so that the inlet sits flush on the finished wall. The top and bottom screw holes can then be marked, drilled and raw plugged to receive the two fixing screws.

However, the square inlet can look better, especially if mounted near to a power point because of their similar looks. If you prefer the square inlet; it is possible to install these on an existing solid wall using the following method.

6. Mark and drill a hole using a 65mm diamond core bit, making sure you avoid electrical wires and pipes. (Core drills are available from us at trade price.)
7. Cut all the surrounding plastic away from the inlet mounting bracket (part no. IC180) using a pair of tin snips and leave just the square raised portion as per the photo.

1 1 2 

8. Glue the remaining part of the mounting bracket onto a straight coupling (part no. IC280) and then glue a length of ducting into the other side of the straight coupling. Make sure that the ducting is sufficiently long to protrude through the other side of the wall. Offer this assembly up and through your hole with the wire trap in the bottom right hand corner of the mounting bracket as per the photo. Draw around the square mounting bracket, remove the assembly and cut along your mark with a Stanley knife or dry wall saw to leave a square hole in the plaster board in front of the 65mm hole through the wall.
9. Pull the low voltage wire through your hole and through the wire trap hole. Offer the assembly back through he hole and press it into place so that the mounting bracket sits flush or a little further back than the finished wall surface.

3 3 4

10. The mounting bracket and ducting assembly can then either be fixed using expanding foam squirted in between the ducting and the 65mm hole within the wall or by drilling, raw plugging and using screws in the inside bottom right and top left corners of the bracket. Make sue these screw are angled into the block-work and well away from the hole and ducting.
11. It may be necessary to use a penny washer when fixing through the wire trap to prevent the screw from pulling through.

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12. Connect the low voltage wire to the two screw terminals on the back of the inlet ensuring not to over tighten. Place a small amount of Vaseline on the neck of the inlet and on the rubber sealing ring and insert the inlet.
13. Fix the inlet using the screw provided but do not over tighten.

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7. Some useful installation photos